

## AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

### Listing of Claims:

1. (Original) A porcine uroplakin II gene promoter having a base sequence of SEQ ID NO: 1:

[SEQ ID NO: 1]

gggctaggagtggaatcagagctggcctatgccacagcaacgcagaatccaaaccacatctccgacctaca  
ccagaccgtcaccataacacaggatcctaaccactgagcaaggcaggatcaaaccctcatggatactag  
tcgggttctaaccgctgagccacagtgggcactcctgtttgtgtgtctcgttttggctgcatctgcagcatacagaagt  
tcttgggttaaggattgaacctatgccacagcagcaaccgagccacagcagtgacaacagcctgatccttaactgcta  
gaccaccaggggaacgccccctcaactttcatgccttggaaccctgagtcagtacaacctgacaatngnttttttttttttt  
ttgccttttctagggccacttcccgccgcatgtggagattcgcaggctanaggctaatcggagctgtagccaccggcctac  
accagagccatagcaacgagggatccgagccgagctctgaacctacactacagctcatggcaacaccggatcgtaac  
ccactgagcaaggccaggggatcgaaccgcaacctcatgggtcctagtcagattcgtaaccactgcacatgacagg  
aactcccaacctgacaattttatcatttctgcacctagttgttgagtaattgaaaaattccaagatgtcaaggctagtgta  
tggttaatttatgtgtcaacctgactaggccatgttgccggatgtggagtcattgttattctggatgttactgtgaagatatgttt  
ggatgaaattaacatttaaatcagtggggggaaaaaagaagtctcgttctggtgcatcagaaacaaatccgactagga  
aacaagcgggtgcaggttcgatccctggcctcacttagtgagtcaggatctggcgttgccgtgagctgtggtacagggtggc  
agatgcagctcggatctagcattgtgtggtgtggtgtagccagcagctgtagctctgattaaacccaagtctgggaac  
ctccatagccgtgggtgtggtggccgaaaaagcaaaaaataaataaataaatttaaacagggggattttgagcaaa  
gcagattaccccataatatgggtgggtctcatcaagttcattgtaggccctagtggaacaaagaccgacctccaccttctcc  
ccatgagaaggaaagaattctgcaaaaagaccgcttnggacntaaactgcaactcttctcctgagttccagcatgttggc  
ctcccccatcagactttggacttgccaagcctccgcaattgcatgagccaattccttaaaataaatccgtctatatatacacat  
cctgttggttctgtttctccagagaacctgactaacgcagctctgcacctgaagaccagtggtccccacactcagctggg  
tgtcacctcaaacactcagccttctcaaggctcttctagctgtgtcctcctctcccccacacagctgttcaaactctcacc  
cctctcagggcgcaatcccttctcctccctgagttctacttccagagaaagcagagacctcaggagtggtgctgctta  
acttacttctctcatccctcagccttgcaaaagtataagcttctctgcacctgccccattctctctctgcagacagggtcatt

cctaaagccaaacgctaatagcctccacctctgatctgagtcacatctttccctcctccagaagcttctcataaattctacccc  
cttttcttctatctttatctttgaaaacaaaatggaagacagcctcccgttggtgcagcggaacagtggtgccttgaa  
gcgctgggacgcaggttcgacccctggccagcatagtaggttaaggatccagtggtgccacagtttggttagattgaaa  
ctgcagctcagatctggtccctggcctgggaacttcatacgccacaggacggcccaaaaagaaaagaaaagaaaaaat  
aaaaaacaacagaaaagccttctgtacccccaattccctccagttatctctctcttccctcccagccaagctctgca  
aagagcgggtctgcacagttctaactctacctcctccagttggccctggactttctcagctcgttctacccccctacccgt  
aggaatctgctctgaaggacacgcacccctcacgatccttgcccaggacattttgtaccagccttcaatctgacctt  
catatcatccgacacctcctttgtgaaacccctccatccactttctcctggttcccctcctaagacccattccgcttctcagccc  
cctccctccatctgtcctttagatgccgatttcttagtatcctgtcctgcgcggnctcgtcctccctccacaactctctcaag  
gactcttttctccatgtgcgattttgccatggcccaccttccctctcttaccagactttccccgggtgctccagactcatagac  
tcaattatgaaaacatagttttcatctgatttgcccaagatattgcattagttattactgtataacagcttatccccaatttagtg  
gcttataaaataaacacttattctgagaatcagaaacctaggcaggacatagttgggggtctcatgaagttgcactgaaaat  
gtccccctgggctaatacatcgaggagctgaccagggctggaggatctgtccaagctcattcattcacatggccgtaggtt  
ggagacagctcttctcggatcttggcaggagcctcaattcctgtcacgtggacctccccctggaggggggtcccatgtcctc  
catggtgagtaatccatgagagcaagggtggaagggtccatgccatttaggacctagcctcaggagggacctacgtcactt  
ctgttgtagtctgttgccacacagactaacctgacacaatgcacccatccatgacctgctgccagtcattctccacactg  
ttccagaatgatatttacataagtaaaactcctcaaaggcttttgagattttttccattatagttgattataacctcagaggct  
ttgttttctcagcataaaaaccaagttcctaatacatagcatgaacccactggccaccctgccagtggttagaactctcacc  
atgtccatccttgaatactgcttctagccaagagctattgttgacgttcccagaatgtgtcgggataactcacatctctgagc  
ctttcatgtgctgttccctcactttggaatatccccctccatttaggaaggctaattgtccattcattntccaaaactcagaagca  
aatTTTTTTTTTTTTTTTTTTTTTgcttttagggccgaactctcagcatatggagggtcccagggttagccatcaaattggaattgt  
agctgctggcctacaccacagccatagcaacaccagaccaagtcacatctgcaacctacatcacagatcatggcaat  
actggatccttaacccactgagtgagcccaggatcaaacacaaattctcatggatactcgccagggtcattaccactgag  
ccacaacaggaactcctctccttttatggtcacacctgcagcatatggaagttcctgggccagggttgatctgagtgcc  
agctgtgacaatgccgtatccttaattcactgtgctgggctgaggggntaaantggccctcctaaaaaacctgagctgctg  
cagttggattcttaatccactgcaccacaagggggaaggtaagaactgtcttgccatctctgtatcttatcacctagcatagt  
accacatagagaagttgctcaacaaatgttactgaatgaataaatgcatgagctggagttccattgcggtcagcag  
taacaaacctgactagcattcataagaactgggttcgatccctagcctcagtggttaaggatgcagcattgctgtgagct  
gtggtgtaggtcgagacgacactcagatccacattgctgtcactgtggcgaggccggcctctgtagctctgattcgact  
cctagcctgggaacgtccatatgccacaggtgaggccctaaaaagaaataaataagcaagcaagtaagcaagcagg  
cagttcttggtgccttgtaacccctgtggcctgtgtgtatacaagtaacagctgatccatgtctcagtcattgttccccctcaga

ctaccttctgccccatctctcccttgacataattgaaaaacaaattcagaattttgtcccactaccttcttgctagctctgtg  
gccttgggaaagctatttattgcctctgagcctctaatttcatctgcaccaaggattaataaaaaggagaggataagatgaa  
ttacttatattaatttattgaaccagatactgtgctaggcactcttaataaattagcttgagtcatagtagtatcctgggtg  
agacagatttttttccctttatgggtgcacgtgcaacatatggaagttcctgggctggggctgaattggagctgcagggtgctg  
cctatgccacagccatggcaacatcatatacaaaccgcacctgtgacctacaccacagattgcagcaacgctggatcctt  
cacccaaggagcaaggccaggaatcaaattgtcatcctcacaacactatgtccggttttaacccgctgagccacacc  
aggaactccatggcgagacagattttatactctgtctacagaagaggaaagtgaagctcagaatggttaggttaggtaactt  
ggccaagatcaaaaaattcaaagaagatttggggcaagtgtgatcatggcagcattagaaaaataaagaagcat  
ccactgtttccaacactgaacaactgagattttctactctcacagctttccagcttcatatccaaggacagacgctctgcc  
attttcccatcagaccaatatttctgaacactgcacctttacttttaggtccaagtcaccaggggtttccagtttgctcctaca  
gattctgacactatctccacattttttgcacctttattttaagcattttatacctgtcatacctgtctagataaatgggaaggaa  
tgaatcttccatttataggtgagaaaattgaggttcaaagtgactcacaaaagtcatatagcatcactcctcaacaggag  
gacagcagtcaccacagagggttaacatgtccatggagcctagtggacacatttttaactgactgggaagcagcaga  
gtggtattgtgaagggggaatcataggtatatcaaacagacttaggttctgatccgagctattctgctgcaaacaccatag  
ttcaatttaaaaaaaaaaaaaagaaagaaagaaagaaagaaaggagcccccattcctgggtgcagtggaaacaaattcaa  
ctaggaactgtgaggttgggttcgatccctggcctgtcagtggttaaggatctggcgttgccatgagccgtggtgtag  
gttgacagactcaactcagatctggcgttgctgtgactgtggctgtgatgtaggctggcagctgtaactccggttagacccag  
cctgggaacctccatagcaacctccatagcggtgggtgtggccctaaaaagaaaaaaaaaaaaaaaaagaggaattc  
ccttatggctcagcagggttaaggatctggtattgtcactgctgtggctctagttacagccatagtcaggttcaatccctggcc  
caggaacgtctgcacccacaggtgtggccaaaaaagaaagaaaggaaggagttctgtgtggcacaataggattggc  
aacatcttaggagtactgggacacaggttcaatccctggcccagcacagtggttaaggagccagtggtgtgtgcaaaa  
aagaaaagaaaaagtagcatagtagtaaatctgttttaggagctattctttggggcagaacagagagatcaggagct  
ccttgagagcagaaacttacctttacatccctcgctgcctagcacggttctaggggcatacctggtatttaataaatatagcca  
actggataggggatggaaaggaaagagcaggggaggggaacttgagtgagtgaaaaattgagaatccaaaggggag  
acagcctagaaagagtaggtccaagaaagagatccaggcatttgtggccctgggtcccttttccaagccatgaggaaat  
cctcagaggaacagagtgtgtggctttaaatgacttcagcgttgtcaatgaatctgctcggctaaaagagttatcctctgtct  
ccttcgctgtcctccccctcctctcagctcccaaacccttctcggtctgtgtgatgggataattagatgcgagagctcagca  
cagatgatgtccagttgcctagcaactaatggtttcatggagaccgcaaagcacagcctccagagcagccagtgagc  
agctcggcagggcagggagaagacgcaactctcagctcctccagaaacctggggagggccaggagtggggaagaa  
gggggggatcggaggggttaaggcacaggccctcttatcctcttaaaatctggtcagagctctgcctccccctccccta  
ctctgtcccactcataatttcagatggagttgggggttaggagtggaaccaacacaacctacctgcaataaacccaacc

ttctttctgcttctggtttgtggctgaaaatggnaaaagaaatctcccaagtgaagtgtaaacancntcctgggttggaatg  
ggatctgaagagtactaagatccctcagacctggaattccaccatttagtcttccctctctccaaagttctcaatgtgcaaaa  
gatcctctttcagtttgagagcaatgataggatcttctaaaaggagacaaaagccaaggtgcaggaaaaatagaattca  
gttcttcacccaaaggcagcctgtcctgggagacaggggtgaaacacttggctctgatctccatcagaggatccagagtgt  
gtgtgtttgtgtggtgggagggggacacaatatagagcatctggtgactcaaagtatgtgcctcccagagtagcatcaatca  
atgttacctggaagcttgttagaaatgcagaatttcagggttcacctcagacctgaatcagaaactgcatttaacaag  
atccctcatgattcatagcacattaaattggagaagcgctgacctgagacctcctcctctctgcttggggcccatagttcta  
cctttattgtcacctcgtctcacctcgtgctcatacccaggctttagacctaccctcccccatggggaaaggacacaagg  
ccaccagccccctcacttccctaccaggacctggccctcctctgggactggagaaggacaaaggagccccctctgtgg  
agggtacgacctctcctgaccaagtagtccactcaccacaagtggtctacctctctgagtctcagttccacatccacaaa  
agggtggcaatgctatctgccaccagaatggctgtgaggggtggagcaggcaaagcctctgtgccatcagagaaattgt  
gtctcttttcattttctcccagtggtttcttctcgtcttattcttttttttttttctgtctgtgtatttttagggccgtgctgtggca  
tacggaagttcccagggtaggggtccaatgggagctgtagccccgggcctacgccacagccacagcaatgtgggatct  
gagccacgtctgcaacctacaccacagctcacggcaacaccagatcctaaccactgagcaaggccagggatcgag  
cccacgtcctcatggatgctagttgggtcgtaaccgctgagccatgatgataactcctcttctattctttagtcacaaacagt  
caacaaaggttgctgaccaaggctgatcggtgccccccccagccccccagactgggccagtgtccaccccttgggtct  
ctctggaaatcctgcccagcatcaattggctccactctccaggaggatgggaagccctgtggcccctgggactcacaccc  
ctctgcatctcccagagtgcaggacctggtcttcaggagacaccaagaactggctccccgggctctgctgccccacccc  
ctactaccagtttctctccattcctgcccagtcaggccccctggggttactctcctctctctgtacaccagtgcacctcaga  
acctgcttccctcctgggaacacccactaccacgtgggagaaggggtcgtctaggggtgggccccagatacactgttaa  
gcaggaacacacgagcccttacatgtgggtgtcccgaagaaggggggtttccaccccccgctttagtcacctgtcccctc  
tgcagctgcctgagccaccaagaccagccaaggtctcctgccttctggcctgagggccagctccccatcctgaaaaac  
ctgtctgggggctccccctgaggctgtagggcccaaggcctcccctgaggctgtagggcccaaggggcaggtgaacag  
gattccccctctggccccctctacccccaggacaaaaccagagccccaggacagggcctcacttgccctcaggaaaccac  
agcttgccagcaccagcccagcaccagcccagct

2. (Original) The uroplakin II promoter of Claim 1, which is one selected from functional equivalents which have one or more disruption, deletion, insertion, point, substitution, nonsense, misense, polymorphism or rearrangement mutation occurred in the base sequence of SEQ ID NO: 1.

3. (Currently Amended) An expression vector comprising the base sequence of the promoter of Claim 1 or 2 and a base sequence coding for a target protein at the 3' end of the promoter.

4. (Original) The expression vector of Claim 3, wherein the target protein is human erythropoietin (EPO).

5. (Original) The expression vector of Claim 4, which is the expression vector pUP2/hEPO deposited under the accession number KCTC 10352BP.

6. (Original) The expression vector of Claim 4, which is an l/pUP2/hEPO vector containing a neomycin-resistant gene of SEQ ID NO: 5 as a selective marker, and an insulator of SEQ ID NO: 6 at the 5' end of the UPII promoter:

[SEQ ID NO: 5]

gcggccgcgcgcgtcaggtggcacttttcggggaaatgtgcgcggaacccctattgtttattttctaaatacattc  
aaatatgtatccgctcatgagacaataaccctgataaatgcttcaataatattgaaaaaggaagagtcctgaggcggaaa  
gaaccagctgtggaatgtgtgtcagttagggtgtggaaagtccccaggctccccagcaggcagaagtatgcaaagcatg  
catctcaattagtcagcaaccaggtgtggaaagtccccaggctccccagcaggcagaagtatgcaaagcatgcatctca  
attagtcagcaaccatagtcctcgccctaaactccgcccattccgcccctaaactccgcccagttccgcccattctccgccc  
atggctgactaattttttttatgacagaggccgaggccgcctcggcctctgagctattccagaagtagtgaggaggcttttt  
ggaggcctaggcttttgcaaagatcgatcaagagacaggatgaggatcgtttcgcatgattgaacaagatggattgcacg  
caggttctccggccgcttgggtggagaggctattcggtatgactgggcacacagacaatcggctgctctgatgccgcc  
gtgtccggctgtcagcgcagggcgcccggttcttttgcagaccgacctgtccggtgccctgaatgaactgcaagacg  
aggcagcgcggctatcgtggtggccacgacgggcgttcttgcgcagctgtgctcgacgtgtcactgaagcgggaag  
ggactggctgctattgggcgaagtgcgggggcaggatctcctgtcatctcacctgctcctgccgagaaagtatccatcatg  
gctgatgcaatgcggcggtgcatacgcttgatccggctacctgcccattcgaccaccaagcgaaacatcgcatcgagc  
gagcacgtactcggtggaagccggtctgtcgatcaggatgatctggacgaagagcatcaggggctcgcgccagccg  
aactgttcgccagggtcaaggcgagcatgcccgcggcgaggatctcgctgtgacctatggcgatgcctgcttgccgaat  
atcatggtggaaaatggccgcttttctggattcatcgactgtggccggctgggtgtggcggaccgctatcaggacatagcgt  
tggctaccgctgatattgctgaagagcttggcggcgaatgggctgaccgcttctcgtgctttacgggtatcgccgctcccgaat  
cgagcgcacatgccttctatgccttctgacgagttctctgagcgggactctgggggtcgaaatgaccgaccaagcgacg

P27726.A01

cccaacctgccatcacgagatttcgattccaccgccgcttctatgaaaggttgggcttcggaatcgtttccgggacgccg  
gctggatgatcctccagcgcggggatctcatgctggagttctcgcccaccctagggggaggctaactgaaacacggaa  
ggagacaataccggaaggaacccgcgctatgacggcaataaaaagacagaataaaacgcacgggtgttgggtcgtttgt  
tcataaacgcgggggttcgggtcccagggctggcactctgtcgataccccaccgagacccattggggccaatacgccgc  
gtttcttcttttccccaccccccccccaagttcgggtgaaggccagggctcgagccaacgtcggggcggcaggccc  
tgccatagcctcaggttactcatatatacttttagattgattaaaaacttcattttaatttaaaggatctaggtgaagatccttttg  
ataatctcatgaccaaatacccttaacgtgagtttctgctccactgagcgtccgatcg

[SEQ ID NO: 6]

tcgactctagaggacagccccccccaaagccccagggatgtaattacgtccctcccccgctaggggcag  
cagcgagccgcccggggtccgctccggtccggcgctcccccgcatccccgagccggcagcgtgccccgacagcc  
cgggcacggggaaggtggcacgggatcgcttctctgaacgcttctcgctgctctttgagcctgcagacacctggggg  
atacggggaaaaagctttaggctgaaagagagatttagaatgacagaatcatagaacggcctgggtgcaaaggagca  
cagtgtcatccagatccaacccctgctatgtgcagggcatcaaccagcagcccaggctgccagagccacatccag  
cctggccttgatgcctgcagggatggggcatccacagcctccttgggcaacctgttcagtgcgtcaccacccctctgggg  
aaaaactgcctcctcatatccaacccaaacctcccctgtctcagtgtaaagccattccccctgtcctatcaagggggagttt  
gctgtgacattgttggtctggggtgacacatgtttgccaattcagtgcatacggagaggcagatcttggggataaggaagt  
gcaggacagcatggacgtgggacatgcaggtgttgagggtctgggacacttccaagtcacagcgttcagaacagcct  
taaggataagaagataggatagaaggacaaagagcaagttaaaaccagcatggagaggagcacaaaaaggcca  
cagacactgctggtccctgtgtctgagcctgcatgtttgatggtgtctggatgcaagcagaaggggtggaagagcttgccg  
gagagatacagctgggtcagtaggactgggacaggcagctggagaattgccatgtagatgttcatacaatcgtcaaatca  
tgaaggctggaaagcctccaagatccccaagaccaaccccaacccacccaccgtgccactggccatgtccctcagt  
ccacatccccacagttcttcatcacctccaggacgggtgacccccccacctccgtgggcagctgtgccactgcagaccg  
ctctttggagaaggtaaactcttgctaaatccagcccgacctcccctggcacaacgtaaggccattatctctcatccaactcc  
aggacggagtcagttaggatggggctctagaggacagccccccccaaagccccagggatgtaattacgtccctcc  
ccgctaggggcagcagcgagccgccccggggtccgctccggtccggcgctcccccgcatccccgagccggcagc  
gtgcggggacagccccgggcacggggaaggtggcacgggatcgcttctctgaacgcttctcgctgctctttgagcctgca  
gacacctggggggatacggggaaaaagctttaggctgaaagagagatttagaatgacagaatcatagaacggcctgg  
gttgcaaaggagcacagtgctcatccagatccaacccctgctatgtgcagggcatcaaccagcagcccaggctgcc  
agagccacatccagcctggccttgatgcctgcaggatggggcatccacagcctccttgggcaacctgttcagtgcgtc  
accacctctgggggaaaaactgcctcctcatatccaacccaaacctcccctgtctcagtgtaaagccattccccctgtcct  
atcaagggggagtttgctgtgacattgttggtctggggtgacacatgtttgccaattcagtgcatacggagaggcagatctt

ggggataaggaagtgcaggacagcatggacgtgggacatgcaggtgtgagggctctgggacactctccaagtcacag  
cggtcagaacagccttaaggataagaagataggatagaaggacaaagagcaagttaaaccagcatggagaggag  
cacaaaaaggccacagacactgctgggtccctgtgtctgagcctgcatgtttgatgggtcttgatgcaagcagaaggggtc  
catgtccctcagtgccacatccccacagttctcatcacctccagggaagggtgacccccccacctccgtgggcagctgtgc  
cactgcagcaccgctctttggagaaggtaaattctgctaaatccagcccgaccctcccctggcacaacgtaaggccattat  
ctctcatccaactccaggaacggagtcagttag

7. (Original) The expression vector of Claim 4, which is a pUP2/hEPO (WPRE) vector containing a neomycin-resistant gene of SEQ ID NO: 5 as a selective marker, and a woodchuck hepatitis virus posttranscriptional regulatory element (WPRE) of SEQ ID NO: 7 at the 3' end of the EPO gene:

[SEQ ID NO: 7]

accaggttctgttctgttaatacaacctctggattacaaaattgtgaaagattgactgggtattcttaactatgttgctc  
ctttacgctatgtggatacgctgcttaatgcctttgtatcatgctattgctcccgtatggctttcattttctcctcctgtataaatcc  
tggttgctgtctctttatgaggagttgtggcccggtgtcaggcaacgtggcgtgggtgtgcactgtgttgctgacgcaacccccca  
ctggttggggcattgccaccacctgtcagctcctttccgggactttcgctttccccctccctattgccacggcggaactcatcg  
ccgcctgccttgcccgcgtgtggacaggggctcggtgttgggcactgacaattccgtgggtgttcgggggaagctgacgtc  
ctttccatggctgctgcctgtgttgccacctggattctgcgcgggacgtccttctgctacgtcccttcggccctcaatccagcg  
gaccttccttcccgcggtgctgccggctctgcggcctcttccgcgtcttcgccttcgcccctcagacgagtcggatctcccttt  
gggcccgcctccccgcctgtttcgctcgggctcctcgag

8. (Original) The expression vector of Claim 4, which is an l/pUP2/hEPO (WPRE) vector that contains a neomycin-resistant gene of SEQ ID NO: 5 as a selective marker, an insulator of SEQ ID NO: 6 at the 5' end of the UP2 promoter, and an WPRE of SEQ ID NO: 7 at the 3'-end of the EPO gene.

9. (Currently Amended) An animal's fertilized ovum introduced with the expression vector of ~~any one of Claims 4 to 8~~ Claim 4.

10. (Original) A transgenic animal obtained by the implantation of the fertilized ovum of Claim 9.

11. (Original) The transgenic animal of Claim 10, which is one selected from the group consisting of porcine, mouse, bovine, poultry, ovine and caprine animals.

12. (Currently Amended) A method for producing useful proteins, which comprises the steps of:

implanting the animal's fertilized ovum introduced with the expression vector of ~~any one of Claims 4 to 8~~ Claim 4 into a surrogate mother animal; and

obtaining transgenic animals from the surrogate mother animal; and

isolating and purifying useful proteins from the urine of the transgenic animals.